

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

4/10/03
OK
Dated
CW

1. (Currently Amended) A truss structure comprising an upper chord member, a lower chord member, a diagonal chord member connected to a parent plate, and a connection part formed on an end of each of said chord members, wherein

said upper chord member, said lower chord member and said diagonal chord member each comprise a pipe member; and

CI
said connection part comprises a tubular section and a flat section formed integral and continuously ~~by constrained pattern shaping~~ with said tubular section extending from and integral with each said pipe member; wherein

{
said connection part is connected to said parent plate, via a bolt passing through a bolt opening formed in said flat section which has a width determined by the diameter of the pipe member, and an edge portion of the tubular section defining a ~~semi-circular~~ curved boundary with said flat section ~~which includes and constituting~~ a respective transitional ~~slack~~ portion at ~~both ends of the semi-circular boundary~~.

2. (Currently Amended) A truss structure comprising an upper chord member, a lower chord member, a diagonal chord member connected to a parent plate, and a connection part formed on an end of each of said chord members, wherein

said upper chord member, said lower chord member and said diagonal chord member each comprise a pipe member; and

said connection part comprises a pipe tubular section having a curved surface which is formed integrally with and to extend from said pipe member by a cylindrical drawing process and a flat section formed integral with said pipe tubular section by a flat press;

ent. E1 } said connection part is connected to said parent plate, via a bolt passing through a bolt opening formed in said flat section (which has width determined by the diameter of said pipe member,) and an edge portion the pipe tubular section defines a semi-circular curved boundary with said flat section which includes and constituting a respective transitional slack portion at both ends of the semi-circular boundary.

3. (Previously Amended) A truss structure according to claim 1, wherein said parent plate includes a rib erected crosswise thereon, and an edge of said flat section is tapered to allow for each flat section of each chord member to be positioned in close proximity to said parent plate.

4. (Canceled)

5. (Currently Amended) A truss structural member for use in a truss construction including an upper chord member, a lower chord member and a diagonal chord member, each having a connection part formed on an end thereof, wherein said connection part comprises:

a tubular section having a curved surface which is formed by a cylindrical constrained shaping of a pipe member so as to be integral with and extend from said pipe member, and

a flat section having a bolt opening ~~which is~~ and being formed integral with said tubular section ~~by a flat compression press, and wherein a bolt opening is formed in said flat section,~~ said flat section extends extending from and integral with said tubular section to define , said tubular section having an edge portion defining a semi-circular boundary with said flat section which includes respective and constituting a transitional ~~slack~~ portion ~~at both ends of the semi-circular boundary of the tubular section.~~

6. (Canceled)

7. (Canceled)

8. (Currently Amended) A truss structure according to claim 2, wherein said connection part further comprises said parent plate and a rib erected crosswise thereon, and wherein an edge of said flat section is ~~tapered~~ configured to allow for each flat section of each chord member to be positioned in close proximity to said parent plate.

9. (Currently Amended) A truss structure according to claim 3, wherein the size of the tapered edge of said flat section is determined by the following relationship:

$$\ell \leq \sqrt{2} t/2 + 10 \sqrt{2} + 2.0 d + B/2, \text{ and } \ell > 3d \text{ (mm)}$$

wherein ℓ is a ~~half~~ length of a ~~distance~~ between ~~two bolt connection~~ centers of the bolt opening of respective flat sections of opposed chord members ~~oppositely positioned~~ on the parent plate, d is the diameter of bolt and B is the width of the respective flat sections.

10. (Currently Amended) A truss structure according to claim 8, wherein the size of the tapered edge of said flat section is determined by the following relationship:

$$\ell \leq \sqrt{2} t/2 + 10 \sqrt{2} + 2.0 d + B/2, \text{ and } \ell > 3d \text{ (mm)}$$

wherein ℓ is a half length of a distance between two bolt connection centers of the bolt opening of respective flat sections of opposed chord members ~~oppositely positioned~~ on the parent plate, d is the diameter of bolt and B is the width of the respective flat sections.